SMPD3 cDNA Clone – Sphingomyelin Phosphodiesterase 3, Neutral Membrane (Neutral Sphingomyelinase II) (Human)

PRODUCT OVERVIEW

Product Name	SMPD3, cDNA Clone
Full Product Name	SMPD3 cDNA Clone
Product Gene Name	SMPD3 cdna clone
Sequence	ATGGTTTTGT ACACGACCCC CTTTCCTAAC AGCTGTCTGT CCGCCCTGCA CTGTGTGTCC TGGGCCCTTA TCTTTCCATG CTACTGGCTG GTGGACCGGC TCGCTGCCTC CTTCATACCC ACCACCTACG AGAAGCGCCA GCGGGCAGAC GACCCGTGCT GCCTGCAGCT GCTCTGCACT GCCCTCTTCA CGCCCATCTA CCTGGCCCTC CTGGTGGCCT CGCTGCCCTT TGCGTTTCTC GGCTTTCTCT TCTGGTCCCC ACTGCAGTCG GCCCGCCGGC CCTACATCTA TTCACGGCTG GAAGACAAGG GCCTGGCCGG TGGGGCAGCC CTGCTCAGTG AATGGAAGGG CACGGGGCCT GGCAAAAGCT TCTGCTTTGC CACTGCCAAC GTCTGCCTCC TGCCCGACTC ACTCGCCAGG GTCAACAACC TTTTTAACAC CCAAGCGCGG GCCAAGGAGA TCGGGCAGAG AATCCGCAAT GGGGCCGCCC GGCCCCAGAT CAAAATTTAC ATCGACTCCC CCACCAATAC CTCCATCAGC GCCGCTAGCT TCAGCAGCCT GGTGTCACCA CAGGGCGGCG ATGGGGTGGC CCGGGCCGTC CCCGGGAGCA TTAAGAGGAC AGCCTCTGTG GAGTACAAGG GTGACGGTGG GCGGCACCCC GGTGACGAGG CTGCCAACGG CCCAGCCTCT GGGGACCCTG TCGACAGCAG CAGCCCGGAG GATGCCTGCA TCGTGCGCAT CGGTGGCGAG GAGGGCGGCC GGCCACCTGA AGCTGACGAC CCTGTGCCTG GGGGCCAGGC CAGGAACGGA GCTGGCGGGG GCCCAAGGGG CCAGACGCCC AACCATAATC AGCAGGACGG GGATTCAGGG AGCCTGGGCA GCCCCTCGGC CTCCCGGGAG TCCCTGGTGA AGGGGCGAGC TGGGCCAGAC ACCAGTGCCA GCGGGGAGCC AGGTGCCAAC AGCAAGCTCC TGTACAAGGC CTCGGTGGTG AAGAAGGCGG CTGCACGCAG GAGGCGGCAC CCCGACGAGG CCTTCGACCA TGAGGTCTCC GCCTTCTTCC CCGCCAACCT GGACTTCCTG TGCCTGCAGG AGGTGTTTGA CAAGCGAGCA GCCACCAAAT TGAAAGAGCA GCTGCACGGC TACTTCGAGT ACATCCTGTA CGACGTCGGG GTCTACGGCT GCCAGGGCTG CTGCAGCTTC AAGTGTCTCA ACAGCGGCCT CCTCTTTGCC AGCCGCTACC CCATCATGGA CGTGGCCTAT CACTGTTACC CCAACAAGTG TAACGACGAT GCCCTGGCCT CTAAGGGAGC TCTGTTTCTC AAGGTGCAGG TGGGAAGCAC ACCTCAGGAC CAAAGAATCG TCGGGTACAT CGCCTGCACA CACCTGCATG CCCCGCAAGA GGACAGCGCC ATCCGGTGTG GGCAGCTGGA CCTGCTTCAG GACTGGCTGG CTGATTTCCG AAAATCTACC TCCTCGTCCA GCGCAGCCAA CCCCGAGGAG CTGGTGGCAT TTGACGTCGT CTGTGGAGAT TTCAACTTTG ATAACTGCTC CTCTGACGAC AAGCTGGAGC AGCAACACTC CCTGTTCACC CACTACAGGG ACCCCTGCCG CCTGGGGCCT GGTGAGGAGA AGCCGTGGGC CATCGGTACT CTGCTGGACA CGAACGGCCT GTACGATGAG GATGTGTGCA CCCCCGACAA CCTGCAGAAG GTCCTGGAGA GTGAGGAGGG CCGCAGGGAG TACCTGGCGT TTCCCACCAG CAAGAGCTCG GGCCAGAAGG GGCGGAAGGA GCTGCTGAAG GGCAACGGCC GGCGCATCGA CTACATGCTG CATGCAGAGG AGGGGCTGTG CCCAGACTGG AAGGCCGAGG TGGAAGAATT CAGTTTTATC ACCCAGCTGT CCGGCCTGAC GGACCACCTG CCAGTAGCCA TGCGACTGAT GGTGTCTTCG GGGGAGGAGG AGGCATAG
Molecular Weight	70,170 Da
OMIM	605777
Vector	pENTR223.1 or pUC
Clone Sequence Report	Provided with product shipment
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for SMPD3 cdna clone	MBS1269593 is a cDNA clone targeting SMPD3.
Other Notes	Small volumes of SMPD3 cdna clone vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMPD3. It may not necessarily be applicable to this product.

NCBI GI #	85567663
NCBI GeneID	55512
NCBI Accession #	BC112238
UniProt Secondary Accession #	Q2M1S8; B7ZL82
UniProt Related Accession #	Q9NY59
NCBI Official Full Name	Homo sapiens sphingomyelin phosphodiesterase 3, neutral membrane (neutral sphingomyelinase II), mRNA
NCBI Official Synonym Full Names	sphingomyelin phosphodiesterase 3
NCBI Official Symbol	SMPD3
NCBI Official Synonym Symbols	NSMASE2
UniProt Protein Name	Sphingomyelin phosphodiesterase 3
UniProt Synonym Protein Names	Neutral sphingomyelinase 2; nSMase-2; nSMase2; Neutral sphingomyelinase II
Protein Family	Sphingomyelin phosphodiesterase
UniProt Gene Name	SMPD3
UniProt Synonym Gene Names	nSMase-2; nSMase2
UniProt Entry Name	NSMA2_HUMAN
NCBI Protein Information	sphingomyelin phosphodiesterase 3
UniProt Comments for SMPD3	SMPD3: Catalyzes the hydrolysis of sphingomyelin to form ceramide and phosphocholine. Ceramide mediates numerous cellular functions, such as apoptosis and growth arrest, and is capable of regulating these 2 cellular events independently. Also hydrolyzes sphingosylphosphocholine. Regulates the cell cycle by acting as a growth suppressor in confluent cells. Probably acts as a regulator of postnatal development and participates in bone and dentin mineralization. Belongs to the neutral sphingomyelinase family. Protein type: Membrane protein, integral; EC 3.1.4.12; Phospholipase; Lipid Metabolism - sphingolipid Chromosomal Location of Human Ortholog: 16q22.1 Cellular Component: plasma membrane Biological Process: glycosphingolipid metabolic process; sphingomyelin catabolic process
Research Articles on SMPD3	**1.** These results suggest that OTC is a potent stimulant of nSMase-2 expression and that there may be unanticipated complications of OTC supplementation.
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